



FACILITY COMPLIANCE AUDIT REPORT

Division of Waste Management Solid Waste Section

UNIT TYPE: (check all that apply to this audit with same Permit number)

Lined MSWLF		LCID		YW		Transfer		Compost		SLAS		COUNTY: BURKE PERMIT NO.: 12-03 FILE TYPE: COMPLIANCE
Closed MSWLF	X	HHW		White goods		Incin		T&P		FIRM		
CDFL		Tire T&P / Collection		Tire Monofill		Industrial Landfill		DEMO		SDTF		

Date of Audit: 3/7/11& 3/8 /11 Date of Last Audit: 2/11/10

FACILITY NAME AND ADDRESS

Closed MSW Land Fill – Johns River
2500 Marsh Trail Rd.
Morganton, NC 28680

GPS COORDINATES: (Decimal Degrees) **N: 35.78227** **E: -81.6916**

FACILITY CONTACT NAME AND PHONE NUMBER:

Greg Watts – Solid Waste Supervisor (828) 439-5246 Cell
Carson Fisher – General Services Director (828) 430-1777

FACILITY CONTACT ADDRESS (IF DIFFERENT):

Bryan Steen – County Manager
Burke County General Services
P.O. Box 219
Morganton, NC 28680

AUDIT PARTICIPANTS:

Bill Wagner, NCDENR – DWM Solid Waste Section
Greg Watts – Burke County Solid Waste Supervisor

STATUS OF PERMIT:

- Waste last received prior to 1/01/98
- Facility Closed in accordance with 15A NCAC .1627
- An active C&D landfill (also covered by Permit 12-03) is in operation on top of the closed MSW landfill.

MSWLF FACILITY PERMIT NO: 12-03	ISSUANCE DATE	DIN No.
Original Permit 12-03: MSWLF:	April 16, 1987	
Transition Plan (Closure Plan for the MSW included)	April 9, 1994	
Modification to Transition Plan: 3 Acre C&D Unit Area	January 7, 1998	

FACILITY HISTORY:

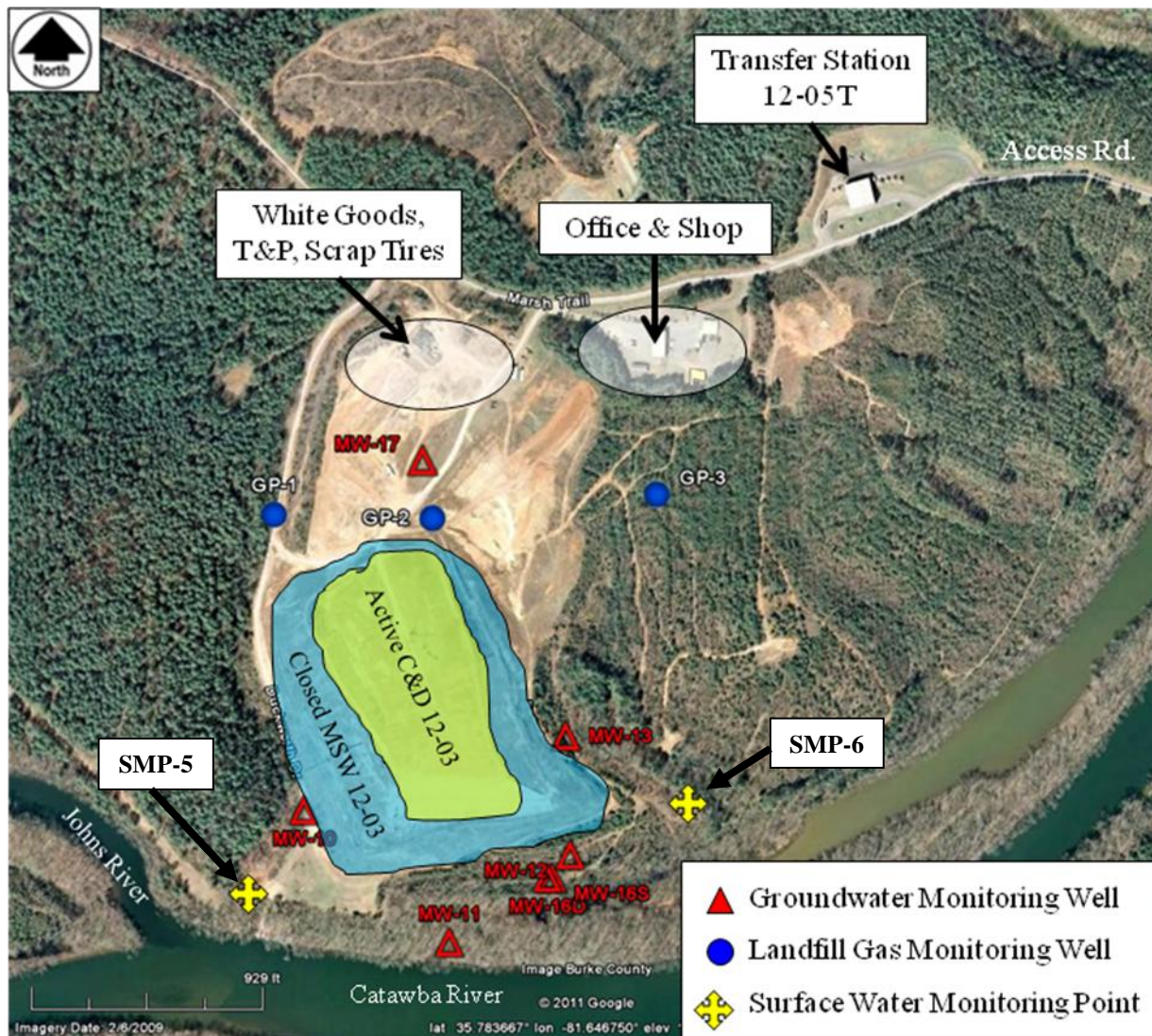
The Johns River Municipal Solid Waste Landfill is an un-lined landfill owned by Burke County. The original permit (12-03) for this facility was issued on April 16, 1987. The facility was closed on December 31, 1997 in accordance with the requirements in 15A NCAC 13B .1627.

An *Assessment Monitoring Program* for exceedances of the groundwater standards began in August 1995. A *Corrective Action Program* was initiated in August 2003. A *Corrective Action Plan (CAP)* to restore

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groundwater quality, consisting of *monitored natural attenuation* (MNA) in conjunction with *phytoremediation* was approved in January 2009.



Map 1: Burke Co. GIS - Active C&D Landfill on top of Closed MSW 12-03 Site Map

PURPOSE OF AUDIT:

Comprehensive Audit

NOTICE OF VIOLATION(S) (citation and explanation):

NONE.

You are hereby advised that, pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$15,000 per day may be assessed for each violation of the Solid Waste Statute or Regulations. For the violation(s) noted here, you may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

STATUS OF PAST NOTED VIOLATIONS (List all noted last audit):

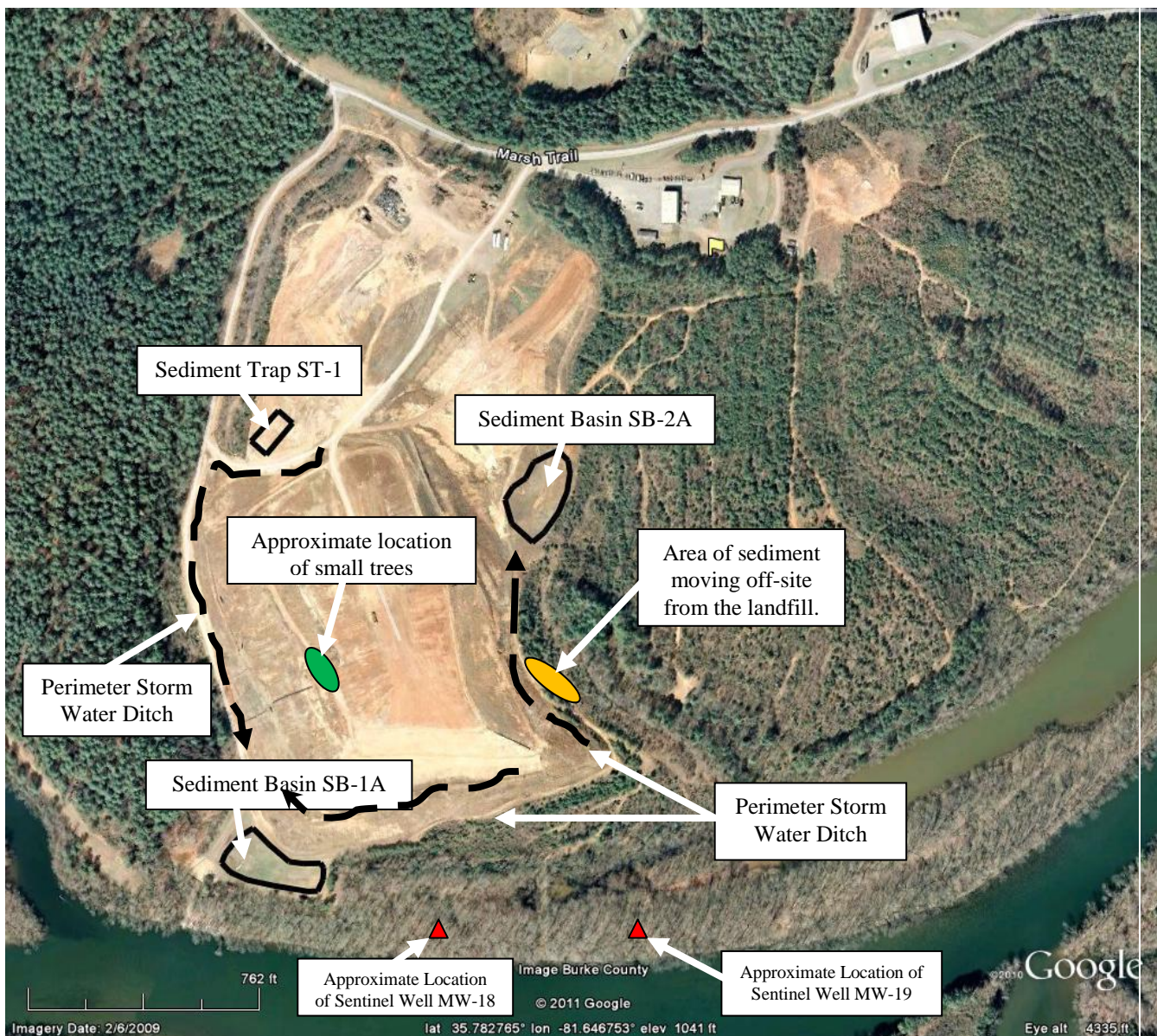
No previous violations cited.

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AREAS OF CONCERN AND COMMENTS:

1. This audit report only addresses the closed MSW landfill.
2. All photos taken by Bill Wagner on 3/7/10 and 3/8/10 unless noted otherwise.
3. Weather records show that approximately 2.5-inches of rain fell over the two days prior to the audit.
4. No leachate seeps were observed on any portions of the MSW landfill.
5. Work on the two new sediment basins (SB-1A & 2A) and one new sediment trap (ST-1) have been completed. (Map #2 and Photos #1, #2, and #3)
6. The perimeter storm water ditches on the west and south sides of the landfill have been improved with more “rip-rap.” (Photos #4 & #5)
7. The vast majority of trees and woody vegetation previously observed on the west and south faces have been removed. However, a several small trees and other woody vegetation were observed on the southern portion of the west slope in the area of the junction between the closed MSW and the active C&D landfills. (Map #2, and Photos #6) **These trees and woody vegetation must be removed.**



Map 2: Burke Co. GIS - Closed MSW LF 12-03- Sediment Ponds, Traps and Perimeter Storm Water Ditches

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1. Looking (NE), at Sediment Trap ST-1. Rip-Rap on the left, lines the out-fall channel from the trap. (Taken 2/11/10 by Bill Wagner)



2. Looking (E) across Sediment Basin SB-1. The top of the over-flow intake is in the foreground.



3. Looking (E) from the east side of the C&D landfill, at Sediment Basin SB-2A.



4. Looking (N) along the perimeter storm water ditch on the west side of the landfill.



5. Looking (W) along the perimeter storm water ditch on the south side of the landfill.



6. Looking (SW) from the top of the C&D landfill at a strip of small trees and woody vegetation in the area of the junction between the closed MSW and the active C&D landfills.

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8. Due to the recent heavy rain, some sediment was observed moving off-site from the SE slopes of the landfill. (Photo #7 & #8) The perimeter road on the southeast and south sides of the landfill has become badly eroded. **The perimeter road needs to be re-graded.**



7. Looking (N) along the access road on the SE side of the landfill. Note the significant erosion that has caused sediment to move off-site. The road needs to be re-graded.



8. Looking (E) at sediment moving off-site from the SE slopes of the landfill. (Well is MW-13)



9. Looking (S) along the access road on the E side of the landfill. The road needs to be re-graded. (Note: that is no effective perimeter storm water ditch on this side of the landfill.)



10. Looking E along the badly eroded access road on the south west side of the landfill. The rip-rap lined perimeter ditch is in the upper left. (Note the yellow field book (4 1/2" X 7 1/2") for scale.)

9. There is no effective perimeter ditch or other erosion control structures / devices on the east side of the landfill. This appears to have contributed to both the erosion of the perimeter road on this area as well as to the movement of sediment and silt off-site from the landfill. (Photos #7, #8, and #9). **15A NCAC 13B .1626(7)(a) states: "Adequate sediment control measures (structures or devices), shall be utilized to prevent silt from leaving the MSWLF facility." Please immediately implement whatever sediment control measures are necessary to prevent any further movement of sediment and silt from the facility.**

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10. The out fall from Sediment Basin SB-1A, which goes directly into the Catawba River, was noticeably turbid on March 7, 2008 (Photos #11 & #12).



11. Sediment laden overflow from Sediment Basin SB-1 on 3/7/10.



12. Looking (S) down the outflow channel from Sediment Basin SB-1 to the Catawba River in the background on 3/7/10.

WATER QUALITY MONITORING

11. Groundwater samples are collected for analysis on a semi-annual basis.
12. The most recent Water Quality Monitoring event occurred in June 2010. Joyce Engineering, Inc. (JEI) sampled one up-gradient well (MW-17) and six down-gradient wells (MW-10, 11, 12, 13, 16S, and 16D). Two "sentinel wells" (MW-18 and 19) that were installed in accordance with the CAP were not located during this audit. A site map dated 1/28/10, submitted by JEI, shows these sentinel wells located between the landfill and the Catawba River. (Map #2) The sentinel wells were installed to evaluate the performance of the approved CAP.
13. The landfill staff has painted the groundwater monitoring wells that are being monitored, red. (Photo #8).
14. Samples were collected from two surface water points SMP-5 and 6 (Map #1) from un-named streams that feed into the Catawba River.
15. Several of the groundwater monitoring wells are not clearly marked with unique IDs. (Photo #13) **Please ensure that all groundwater monitoring wells are clearly marked with unique IDs.**

LANDFILL GAS MONITORING

16. Landfill gas monitoring is conducted by JEI on a quarterly basis.
17. The most recent landfill gas monitoring event occurred on 11/30/10.
18. The landfill staff has painted the gas monitoring probes that are being monitored, blue. (Photo #14).
19. Each monitoring event evaluates the possible presence of landfill gas in three gas monitoring probes (GP-1, 2, and 3), five on-site structures (GMP-1 scale house, GMP-2 recycling center, GMP-3 office/shop, GMP-7A barn, and GMP-13 firing range) and nine other locations (GMP-4, 5, 6, 7, 8, 9, 10, 11, and 12). A search of the records and files in the Asheville Regional office failed to turn up a map or any other documentation detailing the locations of the nine gas monitoring points. **Please submit, to Bill Wagner at the address below, a map showing all of the locations (wells, buildings, ambient monitoring locations, etc.) that are monitored for the presence of landfill gas.**

NCDENR – Asheville Regional Office
DWM – Solid Waste Section
2090 US Hwy 70
Swannanoa, NC 28778

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20. Several of the gas monitoring probes are not clearly marked with unique IDs. (Photo #14) **Please ensure that all gas monitoring probes are clearly marked with unique IDs.**



13. Groundwater monitoring well (believed to be MW-10) that is not clearly marked with a unique ID.



14. Landfill gas monitoring probe (believed to be GP-1) that is not clearly marked with a unique ID.

21. The facility is secured by a gate, which was unlocked – C&D landfill operations were being conducted at the time of the inspection.
22. The permit, operations plan and other landfill records and documentation are kept at the Burke County General Services Office, 100 Government Dr., Morganton, NC.
23. Signs at the entrance to the landfill were installed and posted as required.
24. The Chesterfield F.D. provides fire response.
25. There is a firing range for law enforcement is located north of the yard waste collection area.
26. The edge of waste for the MSW landfill has been marked with permanent stakes.
- 27. The edge of waste for the C&D landfill has yet to be staked out with permanent markers. The edge-of-waste markers for the C&D landfill must be installed as soon as possible.**

Please contact me if you have any questions or concerns regarding this audit report.



Bill Wagner

Environmental Senior Specialist
Regional Representative

Phone: 828-296-4705

Delivered on : <u>3/11/11</u> by	X	Electronic Mail to Carson Fisher: hcfisher@co.burke.nc.us		US Mail	X	Certified No. <u>7002 0460 0001 9899 4445</u> To: Bryan Steen - Burke Co. Manager
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ec: Deb Aja, DWM – Western District Supervisor
Donald Herndon, DWM – Compliance Officer